



SPEARHEAD 12494 4X5L GB

Version 1 / GB
10200001671

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Revision Date: 13.11.2003
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product information

Trade name	SPEARHEAD 12494 4X5L GB
Product code (UVP)	05922909
Product code	TADS9669
Product code (EXP)	EXP30471F
Specification	12494
Usage	herbicide
Company	Bayer Environmental Science Durkan House 214-224 High Street Waltham Cross Hertfordshire EN8 7DP Great Britain
Telephone	+44(0)1992 784270
Telefax	+44(0)1992 784276
Emergency telephone number	0800-220876 (UK only) +44(0)1223-870312

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Suspension concentrate (=flowable concentrate)(SC)
MCPA/Clopyralid/Diflufenican 300:20:15 g/l

Hazardous components

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrases(s)	Concentration [%]
MCPA Potassium salt	5221-16-9 226-015-4	Xn	R20/21/22	39.90
Clopyralid	1702-17-6 216-935-4	Xi, N	R41, R51/53	1.70
Diflufenican	83164-33-4		R52/53	1.30
Alkylated naphthalene sulfonate, formaldehyde polymer, sodium salt	68425-94-5	Xi	R36/38	> 1.00 - < 5.00
1,2 Propanediol	57-55-6 200-338-0			> 1.00 - < 5.00

3. HAZARDS IDENTIFICATION

Risk advice to man and the environment

Harmful by inhalation, in contact with skin and if swallowed.

4. FIRST AID MEASURES



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General advice

Remove contaminated, soaked clothing immediately and dispose of safely.

Inhalation

Move the patient to fresh air and keep at rest. If symptoms persist, call a physician.

Skin contact

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

Eye contact

In case of contact with eyes rinse thoroughly with water. Seek medical advice immediately.

Ingestion

Do not induce vomiting. Wash out mouth with water. Keep at rest. Obtain medical attention.

Notes to physician

Symptoms

Local: May cause skin and eye irritation.

Symptoms

Systemic: To date no symptoms are known.

Treatment

Local treatment:

Initial treatment should be symptomatic and supportive.

Treatment

Systemic treatment:

In the event of a mouthful or more being ingested, the following measures should be considered:

Gastric lavage with charcoal, if necessary further treatment.

Observe specific parameters: blood pressure, levels of MCPA in plasma and urine, pH in urine.

Elimination by dialysis (forced alkaline diuresis).

There is no antidote.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

water spray
alcohol-resistant foam
dry chemical
carbon dioxide (CO₂)

Extinguishing media which must not be used for safety reasons

Product itself is non-combustible; fire extinguishing measures to suit surroundings.

Specific hazards during fire fighting

In case of fire the evolution of dangerous gases is possible.

Special protective equipment for fire-fighters

In the event of fire and/or explosion do not breathe fumes.

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.

Whenever possible, contain fire-fighting water by bunding area with sand or earth.

6. ACCIDENTAL RELEASE MEASURES



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Personal precautions

Avoid contact with spilled product or contaminated surfaces.
When dealing with a spillage do not eat, drink or smoke.

Environmental precautions

Keep people and animals away.
Do not discharge into the drains/surface water/groundwater.
If spillage enters drains leading to sewage works inform local water company immediately.
If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).

Methods for cleaning up

Take up with absorbent material (e.g. sand, earth or a proprietary absorbent material).
Transfer collected material to heavy duty plastic drums and keep safe for disposal.
Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations

Additional advice

Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.
Check also for any local site procedures.

7. HANDLING AND STORAGE

Handling

Advice on safe handling

No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.
Provide good ventilation of working area (local exhaust ventilation if necessary).

Advice on protection against fire and explosion

No special precautions required.

Storage

Requirements for storage areas and containers

Keep containers tightly closed in a cool, well-ventilated place.
Store in a place accessible by authorized persons only.

Further information on storage conditions

Keep away from direct sunlight.
Protect against frost.

Storage stability

Storage temperature 0 - 30 °C

Suitable materials

Keep in original packaging, tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Refer to COSHH assessment (Control of substances Hazardous to Health Regulations 1999 as amended). Engineering controls should be used in preference to personal protective equipment wherever practicable.



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Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
1,2 Propanediol	57-55-6	10 mg/m ³ (TWA) 474 mg/m ³ (TWA)	2001 2001	EH40 OES EH40 OES

Personal protective equipment

- Respiratory protection No personal respiratory protective equipment normally required.
- Hand protection Chemical resistant gloves
 PVC or nitrile rubber gloves
- Eye protection Chemical resistant goggles must be worn.
- Skin and body protection Light protective clothing, PVC
 PVC boots

Hygiene measures

- When using, do not eat, drink or smoke.
- Remove soaked clothing immediately.
- Remove soiled clothing immediately.
- Clean hands and face at work intervals and after work.
- Work in an adequately ventilated room.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form Liquid
Colour brown

Safety data

- pH 9.0 - 11.0
 Determined in the undiluted form
- Density ca. 1.17 g/cm³ at 20 °C
- Water solubility Miscible
- Partition coefficient (n-octanol/water) log Pow: 2.75
 The value mentioned relates to the active ingredient MCPA.
- Partition coefficient (n-octanol/water) log Pow: 1.07
 The value mentioned relates to the active ingredient Clopyralid.
- Partition coefficient (n-octanol/water) log Pow: 4.2
 The value mentioned relates to the active ingredient diflufenican.
- Other information The product is not combustible.

10. STABILITY AND REACTIVITY



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Conditions to avoid	Extremes of temperature and direct sunlight.
Materials to avoid	None
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions. Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	LD50 (rat) < 2,000 mg/kg
Acute inhalation toxicity	LC50 (rat) < 5 mg/l Exposure time: 4 h
Acute dermal toxicity	LD50 (rat) < 2,000 mg/kg
Skin irritation	No skin irritation (rabbit)
Eye irritation	No eye irritation (rabbit)
Sensitization	non-sensitizing (guinea pig)
Further information	Information given is based on data on the components and the toxicology of similar products

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Bioaccumulation	Rainbow trout Bioconcentration factor (BCF): 1,596 The value mentioned relates to the active ingredient diflufenican.
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Ecotoxicity effects

Toxicity to fish	LC50 (Rainbow trout (Oncorhynchus mykiss)) 232 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient MCPA.
Toxicity to fish	LC50 (Rainbow trout (Oncorhynchus mykiss)) 103.5 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient Clopyralid.
Toxicity to fish	LC50 (Lepomis macrochirus (Bluegill sunfish)) 125.4 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient Clopyralid.
Toxicity to fish	LC50 (Rainbow trout (Oncorhynchus mykiss)) > 0.1088 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient diflufenican.



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Toxicity to daphnia	EC50 (Water flea (Daphnia magna)) > 100 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient MCPA.
Toxicity to daphnia	EC50 (Water flea (Daphnia magna)) 225 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient Clopyralid.
Toxicity to daphnia	EC50 (Daphnia) > 0.24 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient diflufenican.
Toxicity to algae	EC50 (Selenastrum capricornutum) > 392 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient MCPA.
Toxicity to algae	EC50 (Selenastrum capricornutum) 6.9 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient Clopyralid.
Toxicity to algae	EC50 (Selenastrum capricornutum) 0.00025 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient diflufenican.
Toxicity to other organisms	LD50 (Bobwhite quail) ca. 377 mg/kg The value mentioned relates to the active ingredient MCPA.
Toxicity to other organisms	LD50 (Mallard duck) 1,465 mg/kg The value mentioned relates to the active ingredient Clopyralid.
Toxicity to other organisms	LD50 (Bobwhite quail) > 2,000 mg/kg The value mentioned relates to the active ingredient Clopyralid.
Toxicity to other organisms	LD50 (Bobwhite quail) > 2,150 mg/kg The value mentioned relates to the active ingredient diflufenican.
Toxicity to other organisms	LD50 (Mallard duck) > 4,000 mg/kg The value mentioned relates to the active ingredient diflufenican.

13. DISPOSAL CONSIDERATIONS

Product

In accordance with current regulations may be taken to waste disposal site or incineration plant, after consultation with site operator and/or with the responsible authority
Can be landfilled or incinerated, when in compliance with local regulations.
Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

Contaminated packaging

Packaging that cannot be cleaned should be disposed of as product waste.
Empty containers can be landfilled after cleaning, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.



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Waste key for the unused product

020108 agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION

ADNR	Not dangerous goods
ADR	Not dangerous goods
GGVE	Not dangerous goods
GGVS	Not dangerous goods
IATA_C	Not dangerous goods
IATA_P	Not dangerous goods
IMDG	Not dangerous goods
RID	Not dangerous goods
CDG CPL	Not dangerous goods

15. REGULATORY INFORMATION

This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP 3.

Hazardous components which must be listed on the label:

- MCPA (ISO); 4-chloro-o-tolyloxyacetic acid
- Clopyralid
- Diflufenican

Symbol(s)

Xn Harmful

R-phrases

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

S-phrases

S36/37 Wear suitable protective clothing and gloves.

Exceptional labelling of special preparations

Restricted to professional users.

To avoid risks to man and the environment, comply with the instructions for use.

Further information

WHO-classification: II (Moderately hazardous)

16. OTHER INFORMATION

Further information

Text of R phrases mentioned in Section 2:

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R36/38 Irritating to eyes and skin.

R41 Risk of serious damage to eyes.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The above information is intended to give general health and safety guidance on the storage and



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transport of the product.

It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with.

The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.

The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.

No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

Changes since the last version will be highlighted in the margin. This version replaces all previous versions.
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